

Serial No. 10/780,648

Docket # 2331-001

REMARKS

Examiner has rejected claims 1-20 under 35 USC 103(a) as being unpatentable over Hedrick (US Patent 2,150,768) in view of MacKenzie (US Patent 2,085,232)

Applicant respectfully traverses Examiner's rejection of claims 1-20 as being unpatentable in view of the combination of Hedrick and MacKenzie.

Hedrick teaches splitting an expanded gas flow immediately into a plurality of gas streams of which only two are discussed, those being a relatively high velocity, low pressure central flow and a relatively low velocity high pressure flow along the edges of the muffler. Sound waves in the expansion chamber are reflected against the walls and the reflected energy is out of phase with the following wave crests acting to neutralize the following crests. Further, the tapered nozzles act to establish an out of phase relationship between the reflected crests and those which may pass through in the central flow for silencing the exhaust.

MacKenzie teaches passing the entirety of the gas flow through the muffler from one end to the other without change of direction and without encountering any serious resistance to their flow (Col. 4, lines 1-4). The apertured baffles of MacKenzie, which are in the form of an annular wall being a truncated cone, are used to direct sound waves so as to alter the direction causing the sound waves to cancel out and silence the exhaust. MacKenzie's baffles are not and cannot be used to affect the direction of the gas flow.

Thus, Applicant believes that there is no contemplation in Hedrick to add the sound directing baffles of MacKenzie to alter the flow of the gas streams therein. Further, Applicant believes that the combination as proposed by Examiner would render MacKenzie inoperative for the purposes for which it was designed as the combination would no longer permit the straight through flow of gas through the apparatus and thus the combination is improper.

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As a further distinction, Hedrick repeatedly notes that it is essential to the invention that the exhaust gases are permitted to expand only upon entering the muffler and thereafter are prevented from any expansion by the critical spacing of the adjacent ends of the tapered nozzle means. Use of a plurality of anti-reversion apparatus as shown in Fig. 4 of the instant application does not rely upon the critical spacing as taught by Hedrick.

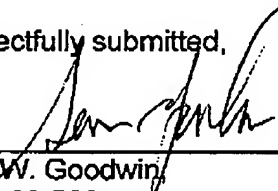
Applicant believes that claim 1 is clearly distinguished over the prior art cited and that claim 1 and those claims which depend therefrom are in condition for allowance.

Reconsideration of the claims is respectfully requested.

Date:

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Respectfully submitted,



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